MATERIAL SAFETY DATA SHEET

Elementis Pigments Inc.
2051 Lynch Avenue
East St. Louis, IL  62204

Product:  CHROMIUM OXIDE GREEN
MSDS No.  PIGMENT / EPI-011
Revision:  Rev. 2
Date:      May 2003

HAZARD MATERIAL IDENTIFICATION SYSTEM

Health Hazard  1 - Slight
Flammability Hazard  0 - Minimal
Reactivity Hazard  0 - Minimal
Personal Protection  E - Glasses, Gloves, Dust Resp

SECTION I. MATERIAL IDENTIFICATION

Trade/Material Name: Chromium Oxide Green
Description: Green Chromium (III) Oxide Powder. C.I. Pigment Green 17, C.I. Number 77288
CAS:  1308-38-9
Chemical Name: Cr₂O₃
MANUFACTURER: Elementis Pigments Inc.
2051 Lynch Avenue
East St. Louis, IL  62204
PHONE:  618-646-2201
E. St. Louis Plant

SECTION II. INGREDIENTS AND HAZARDS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS NUMBER</th>
<th>PERCENT</th>
<th>EXPOSURE LIMITS</th>
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<tbody>
<tr>
<td>Chromium (III) Oxide Green</td>
<td>1308-38-9</td>
<td>&gt;98%</td>
<td>ACGIH TLV: 0.5 mg/M³ TWA (Chromium III compounds as Cr)</td>
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<td>OSHA PEL: 0.5 mg/M³ TWA (as Cr)</td>
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(Ingredients and Hazards continued on next page)
CALIFORNIA - PROPOSITION 65
This material may contain approximately 100 ppm hexavalent chromium. Hexavalent chromium is on the California Governor's list of "chemicals known to cause cancer or reproductive toxicity." The California Health and Welfare Agency has established a "no significant risk" level for hexavalent chromium of 0.001 micrograms/day. Workplace exposures to this product below the TLV for chromic oxide could result in exposures to hexavalent chromium in excess of 0.001 microgram/day. Appropriate warnings should be given.

SARA TITLE III: Section 313 Supplier Notification
This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Chromium compound - 99+% CAS# 1308-38-9

This information must be included in all MSDSs that are copied and distributed for this material.

SECTION III. PHYSICAL/CHEMICAL CHARACTERISTICS

**Appearance and Odor:** Green Powder, No Odor

**Solubility in Water (%):** Insoluble

**Specific Gravity (H₂O=1):** 5.2

SECTION IV. FIRE AND EXPLOSION DATA

**Flash Point (method):** Not flammable

**Extinguishing Media:** Not flammable. Use appropriate extinguishing media for the combustible material involved in the fire.

**Unusual Fire or Explosion Hazards:** None

**Special Fire-fighting Procedures:** Firefighters should use self-contained breathing apparatus.

SECTION V. REACTIVITY DATA

Material is stable - Hazardous polymerization will not occur

**Chemical incompatibilities:** Can react with molten alkali at very high temperatures under oxidizing conditions. May react with chlorine trifluoride, lithium, nitroalkanes, dirubidium acetylide, oxygen difluoride and other strong oxidizers.

**Conditions to avoid:** None

**Hazardous Decomposition Products:** A small amount (less than 0.1% as Cr) of reversion to hexavalent chromium may occur if this product is exposed to elevated temperatures.
SECTION VI. HEALTH HAZARD DATA

Summary of Health Risks and Symptoms of Exposure: May cause skin and eye irritation. Repeated and prolonged exposures to trivalent chromium compounds may cause delayed effects involving the respiratory system.

Principal Routes of Entry: Inhalation, ingestion, skin and eye contact.

Acute Effects: Causes skin irritation. May cause eye irritation.

Chronic Health Effects(s): Contains trivalent chromium compound. As noted by the American Conference of Governmental Industrial Hygienists in their publication "Documentation of the Threshold Limit Values" repeated and prolonged exposures to trivalent chromium compounds may cause delayed effects involving the respiratory system.

Emergency and First Aid Procedures:

Eye Contact: Flush eyes with generous amounts of water for at least 15 minutes. Call a physician.

Skin Contact: Wash with mild soap and water. Remove contaminated clothing. If irritation develops, consult a physician.

Inhalation: Remove to fresh air. Call a physician.

Ingestion: If conscious, give large quantities of water to induce vomiting. Get medical attention.

Acute Oral LD$_{50}$ in rats greater than 5000 MG/KG

SECTION VII. PRECAUTIONS FOR SAFE HANDLING, USE OR DISPOSAL

Spill / Leak procedures: Vacuum or use wet clean-up techniques and place waste material in closed container.

Waste management / disposal: Disposal must be made in accordance with Federal, State and local regulations. Pursuant to 40 CFR part 261 of the Resource Conservation & Recovery Act (RCRA), Regulations currently in effect, discarded Chromium (III) Oxide would not be classified as a hazardous waste.

Precautions to be taken in handling and storing: For transportation emergencies, call CHEMTREC, 24 hour information service, (800) 424-9300.

Chromium (III) Oxide is reportable under SARA Title III, Section 311, 312 and 313.

Chromium (III) Oxide is not listed in Appendix A and B, 40 CFR 355, as an Extremely Hazardous Substance.

xx Immediate (acute) health hazard
xx Delayed (chronic) health hazard
Fire Hazard
Sudden release of pressure hazard
Reactive hazard
SECTION VIII. SPECIAL PROTECTION INFORMATION

Personal protective equipment:

Goggles: Wear safety glasses or goggles to protect against dust particles.

Gloves: Rubber or Neoprene gloves recommended to avoid direct skin contact.

Respirator: Use of NIOSH approved dust respirator is recommended when exposure limits may be exceeded.

Workplace Considerations:

Ventilation: Local exhaust ventilation to collector or containment recommended to control dust to below exposure limits.

Safety Stations: An eye wash station should be available to the area of use.

Other: In accordance with good industrial hygiene practice, avoid contact with skin, eyes or clothing. Avoid breathing dust. Keep away from food products. Keep container closed when not in use. Use with adequate, localized ventilation. Wash thoroughly after handling and before eating, drinking or using tobacco products. Contaminated clothing should be laundered carefully to avoid secondary exposures to product.

SECTION IX. SPECIAL PRECAUTIONS

Special Handling/Storage: Keep in cool, dry place.

DOT Class: Not regulated

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